

AMPEX

# EDM-1



COMPUTER-CONTROLLED  
EDITING SYSTEM

# Ampex EDM-1. A new editing system that offers more creative freedom and working efficiency than you've ever had before.



Even in this decade when technology is offering many exciting new tools for teleproduction, the Ampex EDM-1 is truly outstanding. At once, it lets you make, store, manipulate, rehearse, and execute—on-line or off-line—more edit decisions than any other system. A full range of special effects is at your command, together with virtually unlimited creative freedom in utilizing the effects.

The basic EDM-1 interfaces with up to 8 on-line or off-line video, audio, or disc recorders. It will also work with an Ampex RA-4000 Automatic Programmer. Best of all, however, it teams up with the new AVR-3 videotape recorder to make the most powerful editing system yet offered. The AVR-3 can handle all its own housekeeping tasks, which makes it an ideal partner for the EDM-1.



Floppy disc memory

Offers more opportunities for time savings, efficiency, and productivity than any other editing system.

- Self-contained system with computer and disc memory
- Ultra-sophisticated switcher

Brings more creative flexibility to editing than any other system.

- Unmatched choice of special effects
- Learn mode—the key to more creative range

Provides outstanding growth potential in terms of productivity and creativity.

- Real-language search capability
- Autolearn—unlimited freedom in special effects

## Description

Functionally, the EDM-1 consists of an exclusive, very advanced new video and audio switcher with special effects and titling, an operations control unit with full monitoring, a computer, and a floppy disc unit. The switcher, which is specially designed to work with a computer, is housed in a console with the operational controls, video and audio monitors, and a CRT display. Everything that the director needs is at his fingertips in one location. No other hardware is required.

## Functions

With the memory capacity of the computer and just one disc unit, a director has the ability to make and store all the edit decisions for as many as **3200 scenes**. (Additional disc units are optionally available.) All the necessary scene information, including reel numbers, scene identification, video and audio in and out points, machine identification, switcher setup, special effects, and even plain language comments can be stored. Decisions can be readily manipulated, and if the change affects the timing of subsequent scenes, the necessary correction can be automatically "ripped" through all or any number of those specified scenes. Also, the director has virtually instantaneous access to any scene, because the computer combines the data processing speed of the core memory with the large storage capacity of the disc.

Test and diagnostic routines are standard with the EDM-1. They are supplied on floppy disc for rapid fault isolation.

## More Creative Range

Unlike most editing systems, which offer limited switcher capability, the EDM-1 gives the director an unprecedented range of artistic freedom. In the basic system, a Read-Write feature is found on the effects fader, the dissolve fader, and the title fader. In the learn mode, the director may practice a dissolve, for example, until he achieves just the right creative effect. The system "learns" this effect, stores the proper instructions, and repeats it in exactly the same manner during the Execute mode. This can be done on any or all of the three faders for any scene, adding immeasurably to the director's range of creative choices.

If this capability is not enough, a user can add the switcher Autolearn option. This accessory enables the switcher to "learn" all crosspoints and operational controls. All transitions are programmed under the complete control of the director, giving him truly unlimited artistic decision-making freedom.

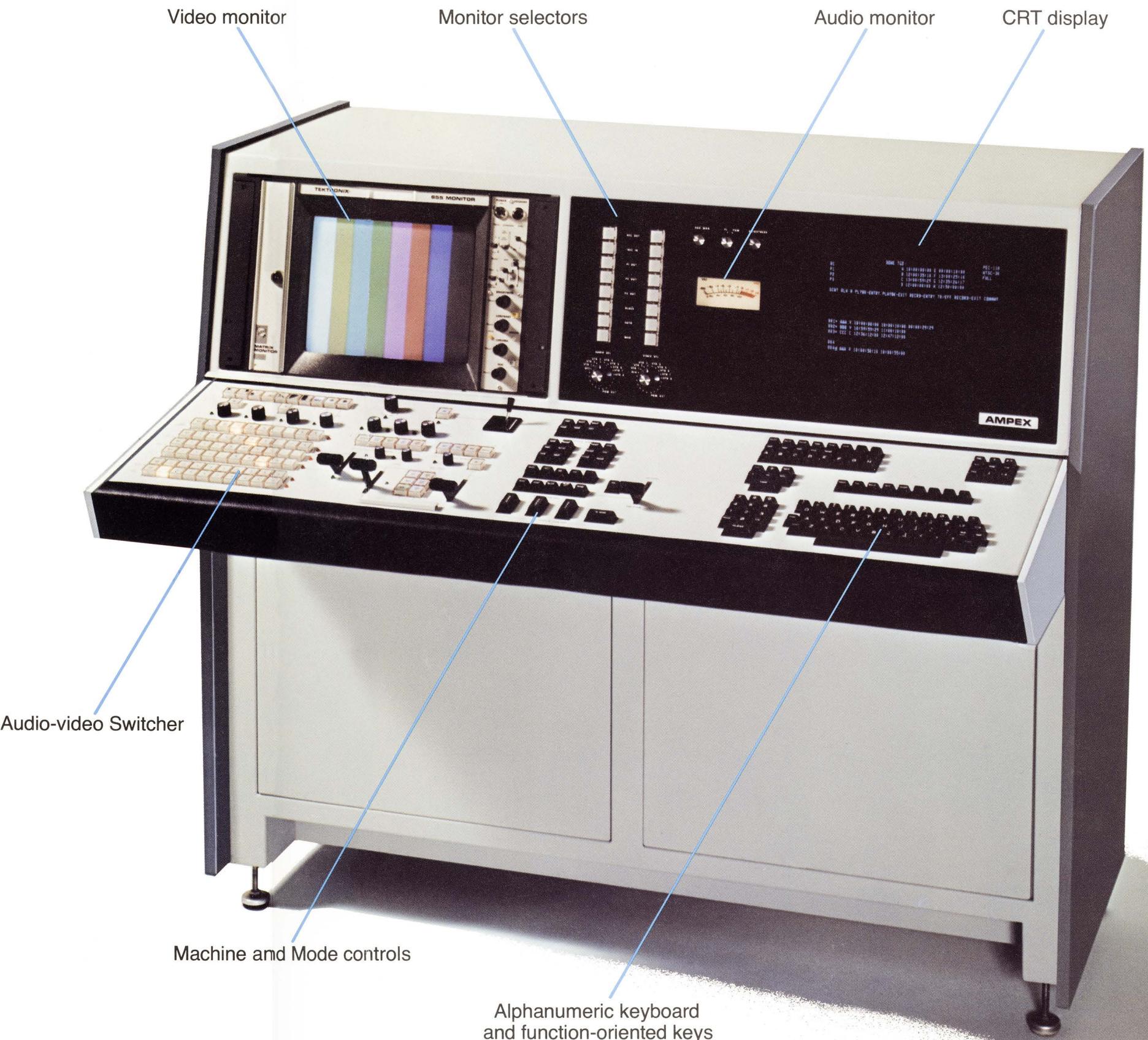
Once the editing has been completed, the edit file (contained on floppy disc) can be stored for future use or reference. If the decision making is done off-line, the edit file is available at any later time and can be sent to any location equipped with an EDM-1 for conforming the final product.

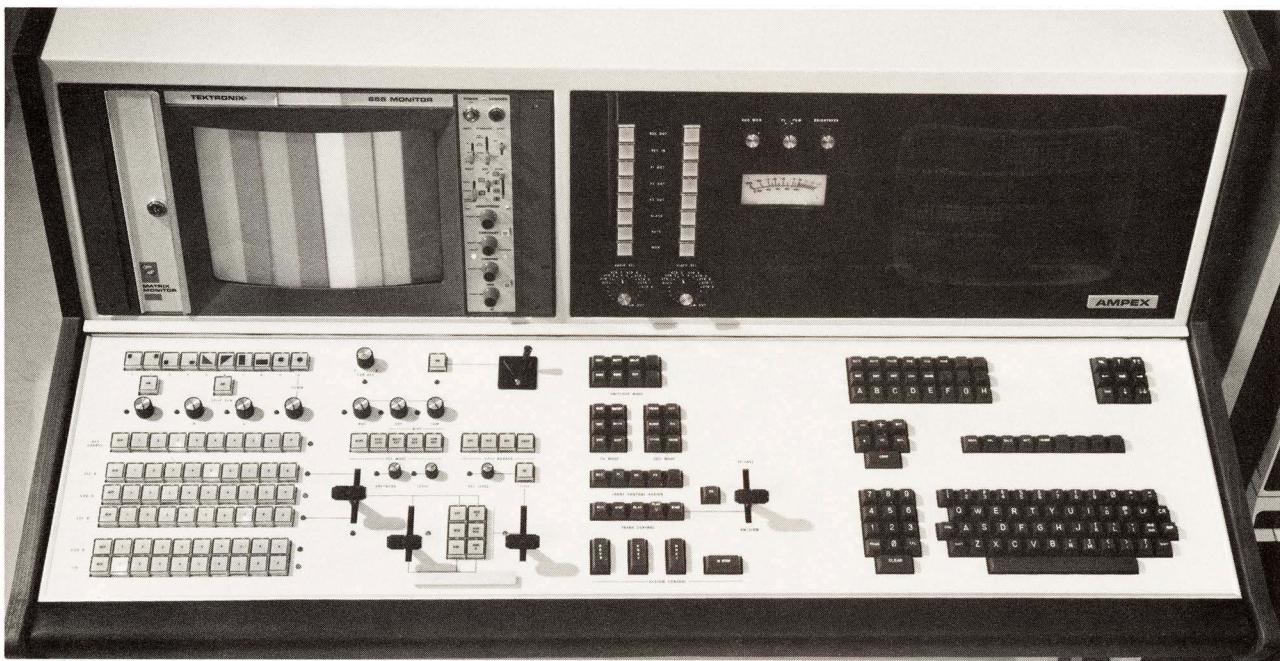
## Extended File Management

An optional extended file management accessory offers two more very important benefits. First, scene information can be entered in real-language form, as well as in time code. Scenes can be identified by a word or title, which greatly simplifies logging. A director need not cross-reference a scene to its time-code address, because he can call it up by its real-language identification.

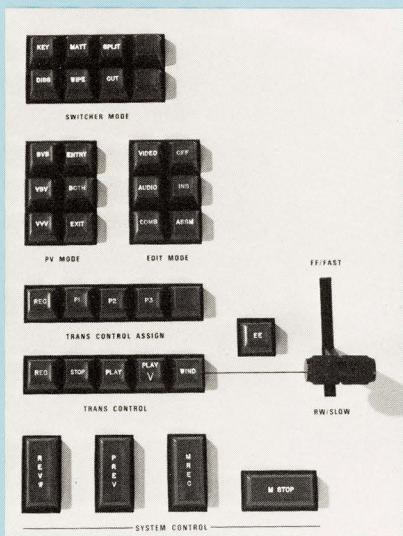
A second major advantage of the additional memory is more efficient time management. For example, when scenes recorded in random order on master tapes are assembled in sequence, a great deal of time is often expended in shuttling tape. With extended file management, the system remembers where each scene is recorded on the master tape. It then calculates and assembles scenes in final sequence in the most efficient manner.

In addition to the Autolearn and Extended File Management options, EDM-1 users can select other accessories to fit their specific applications. Included are a high-speed paper tape punch and reader, a high-speed printer, and a teletype terminal.

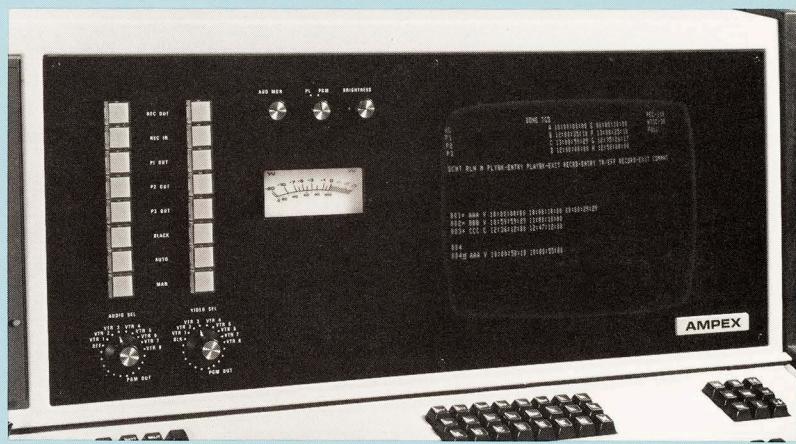




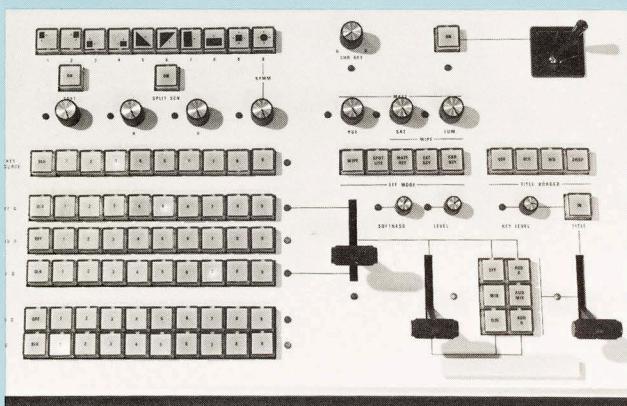
## Overall view of console operating controls



## Machine and mode controls



## CRT display and monitor selectors



#### Audio video switcher & special effects



## Alphanumeric keyboard, and function-oriented keys

## VTR Interface

The designers of the EDM-1 system had a unique advantage: they already knew about the Ampex AVR-3 videotape recorder and its ability to handle its own housekeeping functions when equipped with an optional "intelligent" editor. These functions include pre-roll calculations, search capability, acceleration/ deceleration profiles, edit duration, synchronization of two or more recorders, and switching. Since the hardware and software necessary to perform these chores did not have to be included in the EDM-1, this capacity was used for additional creative flexibility. As a team, the EDM-1 and AVR-3 constitute the most powerful teleproduction system available.

The EDM-1 also has the same flexibility when used with other recorders, thanks to an optional "intelligent" interface. The interface device performs the same housekeeping tasks for other recorders as those the AVR-3 performs for itself.

Whether your editing application is on-line or off-line, and utilizes AVR-3s or other recorders, the EDM-1 is the most flexible and creatively powerful editing system available.



## EDM-1 Specifications

### ELECTRICAL SPECIFICATIONS—VIDEO

#### Video Inputs

10 loop-thru video inputs are provided, composite or designated non-composite (non-composite signals synchronous only). Composite non-sync signals are accepted on any input and passed through the switcher via any path provided no effects or dissolves are attempted. One 75 ohm terminated key input provided.

#### Video Input Level

1V p-p nominal, composite inputs. 0.7V p-p nominal, non-composite inputs.

#### Pulse Inputs

Composite sync and blanking, 2-6V p-p loop-thru.

#### Subcarrier Input

2V p-p nominal input level at 3.58 MHz or 4.43 MHz. Compensated loop-thru input provided.

#### Program Output

Three 75 ohm source terminated program outputs are provided.

#### Preview Output

Two 75 ohm source terminated preview outputs are provided.

#### Output Level

1V p-p nominal composite output when terminated in 75 ohms.

#### Gain

Gain of all paths adjustable to unity.

#### Gain Uniformity

± 1%.

#### K-Factor T Pulse and Window Signal

Less than 1%.

#### Chrominance/Luminance Gain Inequality

Less than 1%.

#### Chrominance/Luminance Delay Inequality

Less than 10 nanoseconds.

#### Path Delay Inequality

Less than 1 degree at color subcarrier frequency.

#### Crosstalk

Better than 55db to 5MHz with signal applied to all paths except energized channel under test.

#### Differential Gain

Less than 1% at all APL.

#### Differential Phase

Less than 1 degree at all APL.

#### Dynamic Gain

Less than 1%.

#### Tilt

Less than 1% horizontal and vertical rate.

#### Operating Temperature Range

0-50 degrees C. ambient temperature.

#### Power Input

115V RMS ±10% 60Hz or 230V RMS ±10% 50Hz.

#### Power Consumption

50VA approximately.

#### Tally Output

2 form A contact rated at 10VA provided for each input.

#### Hum and Noise

Better than 60db down relative to 0.7V.

### ELECTRICAL SPECIFICATION—AUDIO

#### Inputs

All inputs +18dBm maximum test level (+8dBm nominal Program level). 600 ohm source.

#### Outputs

+22dBm maximum into 600 ohms (+8dBm nominal Program level for "OVU" indication on panel meter).

#### Frequency Response

±0.5db, 30 Hz to 15kHz

#### Harmonic Distortion

Less than .5% 30Hz to 15kHz, +18dBm input, +18dBm output.

#### Crosstalk (rel. +18dBm)

Better than -65db to 15kHz

#### Signal to Noise Ratio

Better than -70dBm, rel. to +18dBm.

#### Audio Prelisten Monitor

Built in speaker and 2 watt amplifier with level control.

Reference: Functional 4453D04

Control Panel 4453C10A

Specifications subject to change without notice.

**AMPEX**

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